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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,793	09/12/2003	Chi-An Kao	TS01-1037	8353
8933	7590	03/22/2006	EXAMINER	
DUANE MORRIS, LLP IP DEPARTMENT 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103-4196			NGUYEN, KHIEM D	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,793

Applicant(s)

KAO ET AL.

Examiner

Khiem D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-14 is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 17th, 2006 has been entered. A new rejection is made as set forth in this Office Action based on the newly discovered reference to Sedigh et al. (U.S. Patent 6,893,974). Claims (8-14) are pending in the application, in which claims 12-14 have been allowed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Sedigh et al. (U.S. Patent 6,893,974).

In re claim 8, Sedigh discloses a system for creation of an opening of controllable format through a layer of insulation material, comprising:

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means for creating an opening 22, 24 through a layer of etch resist material 20 provided over the surface of a layer of insulating material 16 having been deposited over the surface of a substrate 10 (col. 16, line 51 to col. 17, line 56 and FIG. 2);

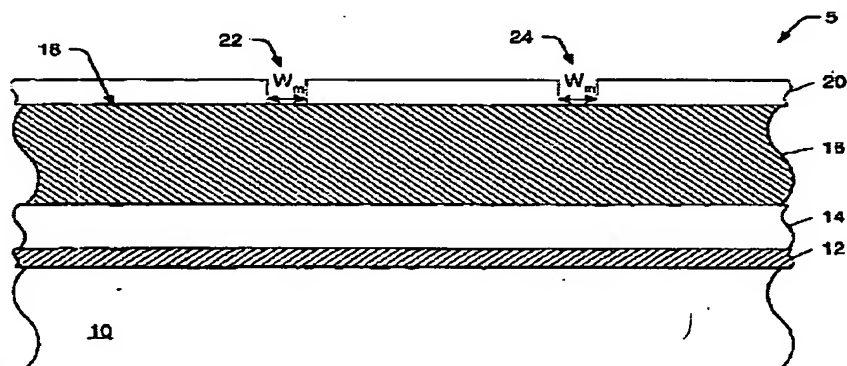


FIG. 2

means, including a feedback mechanism, for obtaining a critical dimension measurement of the opening 22, 24 created through the layer of etch resist material 20 and assuring that the critical dimension measurement is within design specification (col. 10, lines 6-52 and FIG. 9);

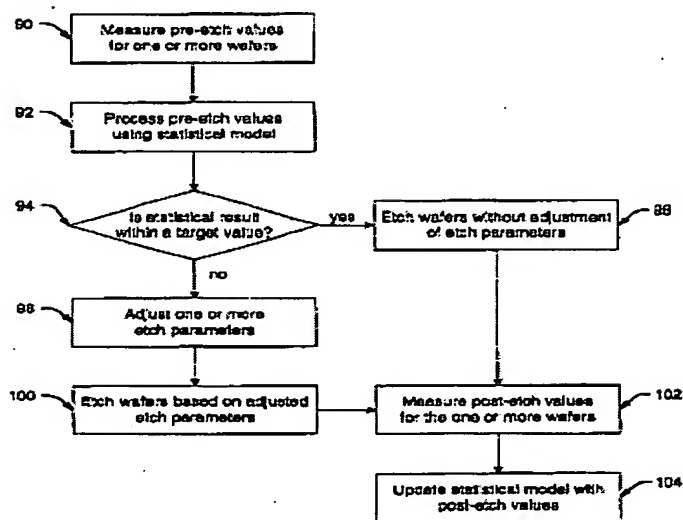


FIG. 9

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means for creating an opening 32, 34 through the layer of insulation material 16, whereby a diameter of the layer of insulation material 16 is dependent on a diameter of the opening 32,34 created through the layer of etch resist material 20 (col. 18, lines 4-57 and FIG. 3); and

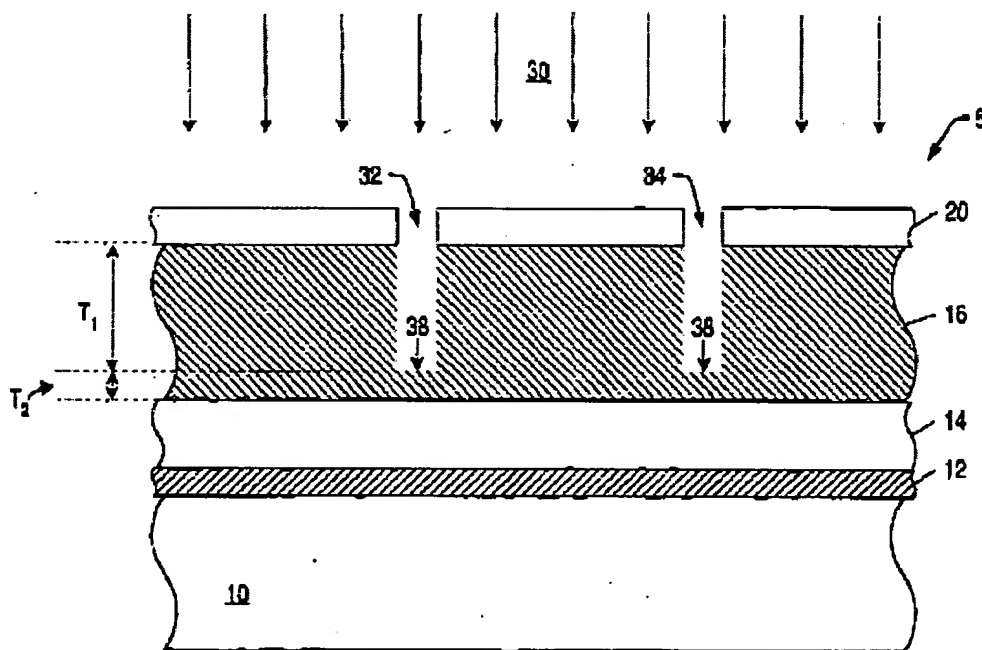


FIG. 3

means, including a feedback mechanism, (col. 13, lines 22-36) for assuring that the opening 32, 34 created through the layer of insulation material 16 is within design specification (col. 10, lines 6-52 and FIG. 9);

In re claim 9, Sedigh discloses means for assuring that the opening created through the layer of etch resist material is within design specification comprising: means for linking to a software supervisory function, thereby including data transmission functions, means for linking to a software function equally being linked to a software

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supervisory function, thereby including data transmission functions; means for data manipulating capabilities, thereby including manipulating interdependent data; means for interfacing with semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment; and means for creating instructions for the semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment (col. 23, line 2 to col. 24, line 45 and FIG. 8).

In re claim 10, Sedigh discloses that means for assuring that the opening created through the layer of insulation material is within design specification comprising: means for linking to a software supervisory function, thereby including data transmission functions, means for linking to a software function equally being linked to a software supervisory function, thereby including data transmission functions; means for data manipulating capabilities, thereby including manipulating interdependent data; means for interfacing with semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment; and means for creating instructions for the semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment (col. 23, line 2 to col. 24, line 45 and FIG. 8).

In re claim 11, Sedigh discloses that the system of claim 8, further comprising means for creating an opening having non-linear sidewalls through a layer of insulation material by applying a high-polymer based etch to the surface of the layer of insulation material (col. 23, line 2 to col. 24, line 45 and FIG. 8).

Allowable Subject Matter

Claims 12-14 were previously allowed.

Response to Applicants' Amendment and Arguments

Applicants contend that the reference Wu et al. (U.S. Pub. 2005/0042523), herein known as Wu, does not teach or suggest the claimed feature of obtaining CD (critical dimension) measurements of the opening created through the layer of etch resist (i.e., photoresist) material, which is commonly known as the AD((after develop inspect)—CD and which are obtained before the subsequent etching process. Applicants further contend that the reference Lymberopoulos et al. (U.S. Pub. 2004/0092047) herein known as Lymberopoulos, does not disclose the feature of “means, including a feedback mechanism for obtaining a critical dimension measurement of the opening created through the layer of etch resist material and assuring that the critical dimension measurement is within design specification”.

In response to Applicants' contention that Wu does not teach or suggest the claimed feature of obtaining CD measurements of the opening created through the layer of etch resist material and Lymberopoulos, does not disclose the feature of “means, including a feedback mechanism for obtaining a critical dimension measurement of the opening created through the layer of etch resist material and assuring that the critical dimension measurement is within design specification”, Examiner respectfully submits that Applicants' arguments are moot in view of the newly discovered reference to Sedigh et al. (U.S. Patent 6,893,974) applied under 35 U.S.C. 102(e) rejection presented in this Office Action. Applicants are directed to (FIGS. 2 and 9) where Sedigh discloses means for creating an opening **22, 24** through a layer of etch resist material **20** provided over the surface of a layer of insulating material **16** having been deposited over the surface of a

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substrate **10** (col. 16, line 51 to col. 17, line 56 and FIG. 2); and means, including a feedback mechanism, for obtaining a critical dimension measurement of the opening **22**, **24** created through the layer of etch resist material **20** and assuring that the critical dimension measurement is within design specification (col. 10, lines 6-52 and FIG. 9). For this reason, Examiner holds the rejection proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D. Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K.N.
March 17, 2006



W. DAVID COLEMAN
PRIMARY EXAMINER